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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,068	05/04/2001	Mark Jaworowski	00-684	8156

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EXAMINER

VALENTINE, DONALD R

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 04/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,068

Applicant(s)

JAWOROWSKI ET AL.

Examiner

Donald R. Valentine

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/10/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

- 1) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 2) Claims 1-3, 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by McGivern.

McGivern teaches a process of providing a brazed “assembly” comprising nickel-base alloy components (vanes) joined by nickel alloy brazing compound, immersing the “assembly” in an electrolyte of sulfuric or phosphoric acid (mineral acids)*, applying a potential across the electrolyte at a magnitude wherein the nickel based alloy components are electrochemically passive (that is, the vanes are not effected by the potential applied to them). (Col. 1, lines 40-65). The reference teaches the removal of the brazing compound from the components as well as teaching that the nickel alloy brazing composition dissolves (see col. 3, lines 30-55). The braze alloy is disclosed at col. 5, lines 8-20.

*((Mineral acids (Chem.), inorganic acids, as sulphuric, nitric, phosphoric, hydrochloric, acids, etc., as distinguished from the organic acids. See <http://dictionary.reference.com/search?q=mineral%20acids> Copyright © 2003, Lexico Publishing Group, LLC. All rights reserved. About Dictionary.com).)

Art Unit: 1742

Claim Rejections - 35 USC § 103

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5) Claims 1-4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

McGivern, Jr. et al in view of Brucken et al.

McGivern teaches a process of providing a brazed "assembly" comprising nickel-base alloy components (vanes) joined by nickel alloy brazing compound, immersing the "assembly" in an electrolyte of sulfuric or phosphoric acid (mineral acids)*, applying a potential across the electrolyte at a magnitude wherein the nickel based alloy components are electrochemically passive (that is, the vanes are not effected by the potential applied to them). (Col. 1, lines 40-65). The reference teaches the removal of the brazing compound from the components as well as teaching that the nickel-alloy brazing composition dissolves (see col. 3, lines 30-55).

Art Unit: 1742

McGivern also teaches a potential of .0.95 v. measured against a mercury-mercury sulfate reference electrode, this voltage being within the range of applicants' claim 4. McGivern teaches a mercury-mercury sulfate reference electrode, not a silver-silver chloride reference electrode, for indicating the potential. (See col. 3, lines 60-65 and col. 4, lines 14-21).

McGivern et al appear to provide the braze alloy composition or modifications thereof. (Col. 5, lines 8-25)

Brucken et al teaches a potential measuring cell with reference electrodes where the reference electrode may be one of silver-silver chloride electrode or mercury-mercury sulphate electrodes.

In the absence of any unexpected results, it would be considered within the skill of the art to substitute any equivalent reference electrode, 'such as', e.g., one described as being equivalent in Brucken et al. because McGivern et al. suggests the mercury-mercury sulfate reference electrode as exemplary of those choices of reference electrodes which may be made.

6) Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGivern et al in view of Speirs et al.

McGivern teaches a process of providing a brazed "assembly" comprising nickel-base alloy components (vanes) joined by nickel alloy brazing compound, immersing the "assembly" in an electrolyte of sulfuric or phosphoric acid (mineral acids)*, applying a potential across the electrolyte at a magnitude wherein the nickel based alloy components are electrochemically passive (that is, the vanes are not effected by the potential applied to them). (Col. 1, lines 40-65). The reference teaches the removal of the brazing

Art Unit: 1742

compound from the components as well as teaching that the nickel alloy brazing composition dissolves (see col. 3, lines 30-55). McGivern et al do not disclose that the brazing composition has a lower melting point than the components.

Speirs et al disclose a brazed component in which stainless steel elements are brazed together to form brazed joints comprising vane/shroud assemblies in which the braze is a non-ferrous alloy based on an alloy metal (see col. 1, lines 50-55). Speirs et al also disclose that the non-ferrous brazing alloy must have a lower melting point than the metal substrates being joined. (See col. 4, lines 30-35).

It would be considered within the skill of the art to expect the brazing alloy of McGivern et al to have a lower melting point than the joined components because the nature of the brazing process requires that the brazing compound have this physical property in order to enable making a proper joint. It would be further obvious to modify the compositions because McGivern et al suggest that there would be no reason to suggest that the method of McGivern et al would not work on other braze compositions. (See col. 5, lines 20-25), especially since the reaction is dependent on selecting appropriate voltage values to determine the optimum conditions to conduct the process.

Conclusion

7) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Christy and Agarwal et al show alloy compositions..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald R. Valentine whose telephone number is 703-308-3327. The examiner can normally be reached on Monday-Friday 9:30-6:00.

Art Unit: 1742

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Donald R. Valentine
Primary Examiner
Art Unit 1742

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April 28, 2003